

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 11-103350

(43)Date of publication of application : 13.04.1999

(51)Int.Cl.

H04M 3/54

H04M 3/42

H04Q 3/58

(21)Application number : 09-260513

(71)Applicant : NEC ENG LTD

(22)Date of filing : 25.09.1997

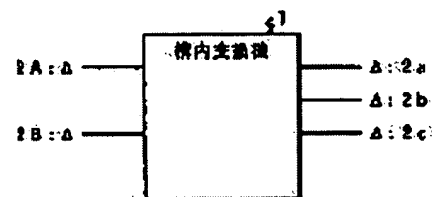
(72)Inventor : MIYAZAKI HITOSHI

(54) ABSENT TRANSFER SYSTEM

(57)Abstract:

PROBLEM TO BE SOLVED: To start transfer after the presence/absence of a callee at the destination to transfer is confirmed by connecting a 1st extension telephone set to the 1st-order extension telephone set at the destination to transfer when a key is inputted.

SOLUTION: The destination to transfer is previously registered at an extension telephone set 2B to become absence. When a transfer destination table has plural destinations to transfer, at a private branch exchange 1, the order and the predetermined key are registered. In a processing sequence after the response of transferred extension telephone sets 2a-2c, in the case of a response at the extension telephone set at the destination to transfer, a voice message sent from the private branch exchange 1 is first heard and according to the contents of the voice message, processing is performed. When the callee moves to that place, a responding person presses a key '#'. Therefore, in the case of absence, recovery is performed or recovery is performed after the lapse of prescribed time by the private branch exchange 1. When the key '#' is pressed, the private branch exchange 1 connects a terminated call and starts speaking.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office

*** NOTICES ***

JPO and NCIPi are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

CLAIMS

[Claim(s)]

[Claim 1] In the absence-transfer method in the private branch exchange which has the 1st function to hold two or more extensions, to answer a special-number input from the extension, and to register the one or more destinations for every extension Said private branch exchange is faced from each extension to destination registration. With the destination and transfer sequence It also has the 2nd function to also register the key as which it was beforehand determined for checking that a response in the destination is the called party of the source. If it checks that this 2nd extension is absent again at the time of the call from the 1st extension to the 2nd extension, said private branch exchange While sending out the message which it shows to having started the absence transfer to the destination registered by this 2nd extension by making this 2nd extension into the source, and having started the absence transfer to said 1st extension It adds to the 1st step which transmits according to the registered transfer sequence, and the message to which it shows the called party of that it is a transfer and the source to the extension of the destination of the 1st sequence. The 2nd step which sends out the message to which it shows the input of the key beforehand registered by the called party of said source, The 3rd step which transmits to the destination of the following sequence in predetermined time when there is no input of said key, or when restoration is detected, The 4th step which will connect said 1st extension to the extension of the destination of said 1st sequence if there is an input of said key is performed. The absence-transfer method characterized by performing said 2nd-4th step and the same step also when it transmits to the destination of said following sequence.

[Claim 2] It is the absence-transfer method characterized by realizing by performing the step said private branch exchange judges the existence of said special-number input for said 2nd function in an absence-transfer method according to claim 1 to be, the step which is made to perform said input of a key defined beforehand, and registers this, and the step which is made to input the number of the extension of the destination in order, and registers this.

[Claim 3] It is the absence-transfer method characterized by having the 3rd function to memorize the number of the extension of the destination without the input of said key when said private branch exchange performs said 3rd step in an absence-transfer method according to claim 1.

[Claim 4] It is the absence-transfer method characterized by said message being a voice-told message in an absence-transfer method according to claim 1.

[Translation done.]

BEST AVAILABLE COPY

*** NOTICES ***

JPO and NCIPi are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the absence-transfer method in the private branch exchange. This absence-transfer method is suitable for the digital exchange for the premises which offer the network service of various gestalten, such as ISDN, and ATM, common channel signaling #7, especially.

[0002]

[Description of the Prior Art] Until now, the example with various absence-transfer methods is proposed. For example, the absence-transfer method which enabled registration of two or more absence-transfer points to telephone is indicated by JP,62-91057,A. However, by this method, when the first destination was absent, in order to transmit to the following telephone, the addresser needed to perform hooking. Moreover, since an addresser was not able to recognize the condition of saying whether to have registered the called party having set up the absence transfer or two or more absence transfers, a function was not able to be used effectively.

[0003] On the other hand, the absence-transfer method which enabled modification of the destination by time of day is indicated by JP,62-110357,A or JP,1-278158,A. However, by these methods, there was a trouble that an incoming call was transmitted to the destination which he does not wish when it is not able to move on time.

[0004]

[Problem(s) to be Solved by the Invention] Furthermore, a two or more destination registration means to register with it in order of a request of two or more destination extensions etc. when an absent extension performs two or more destination register operation defined beforehand to JP,5-83400,A, When a message is received on an extension [finishing / registration], it extracts from a destination extension [finishing / registration] in order of the addressing registration to 1 extension. A call, When the destination extension under call does not answer in predetermined time, an extension [finishing / registration to a degree] is extracted, it calls, and the absence-transfer method which has a two or more destination transfer means to transmit an incoming call to the destination extension which answered is indicated.

[0005] However, by this absence-transfer method, when a transfer is performed in the location in which two or more men like a conference room are present temporarily, or when a third person answers the telephone of the destination, while the transfer which is not its real intention is performed and an addresser and a third person have not understood a reason, either, it may be in a talk state. Therefore, derangement will be given to the third person who answered an addresser and destination telephone, and it will lead to degradation in absence-transfer service.

[0006] Then, the technical problem of this invention enables registration of two or more absence-transfer points, without not giving excessive actuation and giving the user of absence-transfer service excessive constraint to the addresser of a call who received a message at the time of an absence, and is to realize the absence-transfer method in the private branch exchange which can start a transfer after

BEST AVAILABLE COPY

checking the existence of existence [in a called party's destination].

[0007]

[Means for Solving the Problem] In the absence-transfer method in the private branch exchange which has the 1st function for this invention to hold two or more extensions, to answer a special-number input from the extension, and to register the one or more destinations for every extension Said private branch exchange is faced from each extension to destination registration. With the destination and transfer sequence It also has the 2nd function to also register the key as which it was beforehand determined for checking that a response in the destination is the called party of the source. If it checks that this 2nd extension is absent again at the time of the call from the 1st extension to the 2nd extension, said private branch exchange While sending out the message which it shows to having started the absence transfer to the destination registered by this 2nd extension by making this 2nd extension into the source, and having started the absence transfer to said 1st extension It adds to the 1st step which transmits according to the registered transfer sequence, and the message to which it shows the called party of that it is a transfer and the source to the extension of the destination of the 1st sequence. The 2nd step which sends out the message to which it shows the input of the key beforehand registered by the called party of said source, The 3rd step which transmits to the destination of the following sequence in predetermined time when there is no input of said key, or when restoration is detected, Also when there was an input of said key, and the 4th step which connects said 1st extension to the extension of the destination of said 1st sequence is performed and it transmits to the destination of said following sequence, it is characterized by performing said 2nd-4th step and the same step.

[0008] In addition, said private branch exchange is realized by performing the step which judges the existence of said special-number input for said 2nd function, the step which is made to perform said input of a key defined beforehand, and registers this, and the step which is made to input the number of the extension of the destination in order, and registers this.

[0009] Said private branch exchange may have the 3rd function to memorize the number of the extension of the destination without the input of said key, when said 3rd step is performed.

[0010] Moreover, as for said message, it is desirable that it is a voice-told message.

[0011]

[Function] By the absence-transfer method by this invention, it has the description at the point of performing the following processings. the case where there is arrival of the mail to the extension which registered two or more absence-transfer points -- an addresser -- receiving -- "-- it has transmitted. The voice-told message wait for a while" is sent out, and is called in order of registration of the extension of the destination registered. From the destination extension, when there is no response into predetermined time, the following extension is called. The case where there is a response "he has a call coming in to Mr. OO. The voice-told message press a key "#" if it is there" is sent out, and the input of a key "#" is supervised. Here, when there is no input of a key "#" into predetermined time, or when restoration is detected, the following extension is called, and when there is an input of a key "#", connection with an incoming call is made. In addition, when there is arrival of the mail to the extension which registered said two or more absence-transfer points next, a transfer is started sequentially from the extension with an input of the key "#" instead of the sequence of registration.

[0012]

[Embodiment of the Invention] Drawing 1 is drawing showing the basic configuration of this invention. In drawing 1 , 1 is the private branch exchange set as the object of this invention, and 2A, 2B, 2a, 2b, and 2c are the extensions held in the private branch exchange 1. Here, set an addresser's extension to 2A and let the extension of the called party using this invention be 2B. Moreover, the extension of the destination beforehand registered in extension 2B is set to 2a, 2b, and 2c, and a called party explains as what is moving to the location of extension 2b.

[0013] Drawing 2 is a flow chart which shows the registration procedure of two or more destination data set as the private branch exchange 1 from extension 2B using this invention. In drawing 2 , the destination is beforehand registered in extension 2B which becomes absent. Step S2 which inputs a special number, and a response in the destination this registration The source, Namely, the key as which

BEST AVAILABLE COPY

it was beforehand determined for checking that he is the called party of extension 2B and step S3 which is made to input "#" here and registers this, It is carried out by performing step S4 which is made to input the telephone number (here extension 2a, 2b, the telephone number of 2c) of two or more migration locations, and registers this, and S5. In the private branch exchange 1, when the destination and the destination are plurality, the sequence and said key defined beforehand are registered into a destination table (not shown). In becoming absent in extension 2B again, it registers beforehand the absent response indication which shows an absent thing to the call from the private branch exchange 1.

[0014] Drawing 3 is a flow chart which shows the procedure after the response of the extension (2a, 2b, 2c) transmitted by this invention. When it answers in the extension of the destination (step S11), the voice-told message first sent out from the private branch exchange 1 is heard (step S12), and it processes according to the contents of the voice-told message. A voice-told message "he has a call coming in to Mr. OO. If it gets down there, please push #". It is made the contents "

[0015] The person who answered in step S13 will press a key "#", when the called party is moving to the location (step S14), and when absent, it restores or is restored by the private branch exchange 1 after predetermined time progress. If a key "#" is pressed in step S14, the private branch exchange 1 will make incoming call connection at step S15, and a message will be started at step S16.

[0016] Next, the transfer processing flow chart of the private branch exchange 1 is shown in drawing 4 . If an absent thing is checked by the absent response indication when a message is received from an addresser's extension 2A in a called party's extension 2B (step S21), a transfer will be started to extension 2a registered (step S22). The private branch exchange 1 sends out a voice-told message at the time of the response of extension 2a (step S23). In extension 2a, processing is performed according to the response procedure explained by drawing 3 .

[0017] On the other hand, when there is no input of a key "#" into predetermined time by processing of drawing 3 , at the time of restoration detection of extension 2a of the destination, the next destination is searched with the private branch exchange 1 from a destination table (step S26). Here, when there is the following destination information, the transfer to the following extension is started (step S28), and when the input of a key "#" is in predetermined time, connection with an addresser is made (step S25). In addition, this may be omitted, although the destination without an input of a key "#" is memorized at step S27 in order to use it in the case of retrieval of the next destination.

[0018] Temporarily, in step S26, there is no next destination, or when absent in all the destinations, it shifts to processing ** of drawing 4 . Here, processing ** is indicated as an example. A voice-told message is sent out from the private branch exchange 1, and the next processing is made to choose to an addresser at step S29. For example, when the telephone number is inputted following a key "1", connection with the extension of the telephone number is made. Moreover, when a key "2" is inputted, an addresser's telephone number and arrival-of-the-mail time of day are memorized. Such processing is called the arrival-of-the-mail hysteresis preservation function. In addition, if there is no key input, it will restore.

[0019] The sequence chart of a series of processings from the dispatch explained above to arrival of the mail, a transfer, and a message is shown in drawing 5 . If the addresser of extension 2A sends to extension 2B and it checks that extension 2B is absent in the private branch exchange 1, in the private branch exchange 1, a voice-told message is sent out to extension 2A. A voice-told message, "it has transmitted now. Please wait for a while. They are contents, such as ". While the addresser is hearing the voice-told message, the private branch exchange 1 starts transfer processing. Transfer processing is performed according to the procedure shown in drawing 4 . In extension 2b of the destination, processing is performed according to the destination processing sequence of drawing 3 .

[0020] When the private branch exchange 1 of the processing sequence of drawing 4 receives the key "#" inputted when the called party is moving to the destination in the destination processing sequence of drawing 3 , the private branch exchange 1 connects extension 2b with an input of a key "#" with an addresser's extension 2A, and makes it a talk state.

[0021] In addition, when there is arrival of the mail to extension 2B next by memorizing the number of the extension which had the input of a key "#" in the beginning in the private branch exchange, you may

make it start a transfer sequentially from the extension which had the input of a key "#" not by the sequence of registration but by the aforementioned processing.

[0022] Moreover, although you may make it the keys as which it was beforehand determined for checking that a response in the destination is the called party of the source differ for every extension, since the class of key of the extension has constraint, they may be common to all the extensions. Moreover, although said key defined beforehand is made into "#" in the above-mentioned explanation, this does not have that you may be other keys also until it says it. Furthermore, a message may be the character representation on a display, when not only a voice-told message but the extension has a display.

[0023]

[Effect of the Invention] Since according to the absence-transfer method of this invention registration of two or more absence-transfer points is enabled without not giving excessive actuation and giving the user of absence-transfer service excessive constraint to the addresser of a call who received a message at the time of an absence, and a transfer can moreover be started after checking the existence of existence [in a called party's destination] as explained above, improvement in absence-transfer service can be aimed at.

[Translation done.]

* NOTICES *

JPO and NCIPi are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is drawing having shown the basic configuration of the private branch exchange with which the absence-transfer method by this invention is applied.

[Drawing 2] It is the flow chart Fig. showing the registration procedure of two or more destination data set as the private branch exchange from the extension.

[Drawing 3] It is the flow chart Fig. showing the procedure after the response of the extension transmitted by this invention.

[Drawing 4] It is a flow chart Fig. for explaining the transfer processing in the private branch exchange of this invention.

[Drawing 5] It is the sequence-chart Fig. having shown a series of processings from dispatch by this invention to arrival of the mail, a transfer, and a message.

[Description of Notations]

1 Private Branch Exchange

2A, 2B, 2a, 2b, 2c Extension

[Translation done.]

BEST AVAILABLE COPY

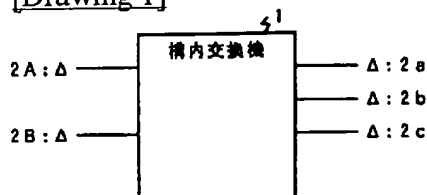
* NOTICES *

JPO and NCIPi are not responsible for any damages caused by the use of this translation.

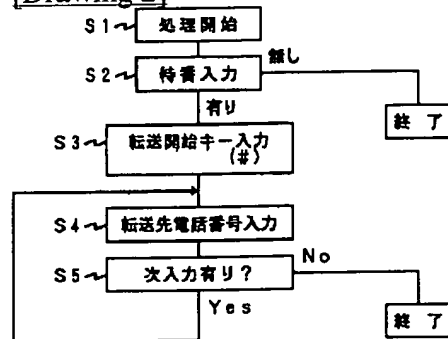
1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DRAWINGS

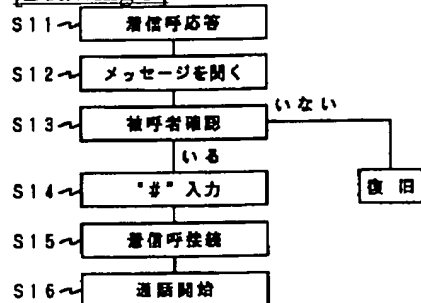
[Drawing 1]



[Drawing 2]

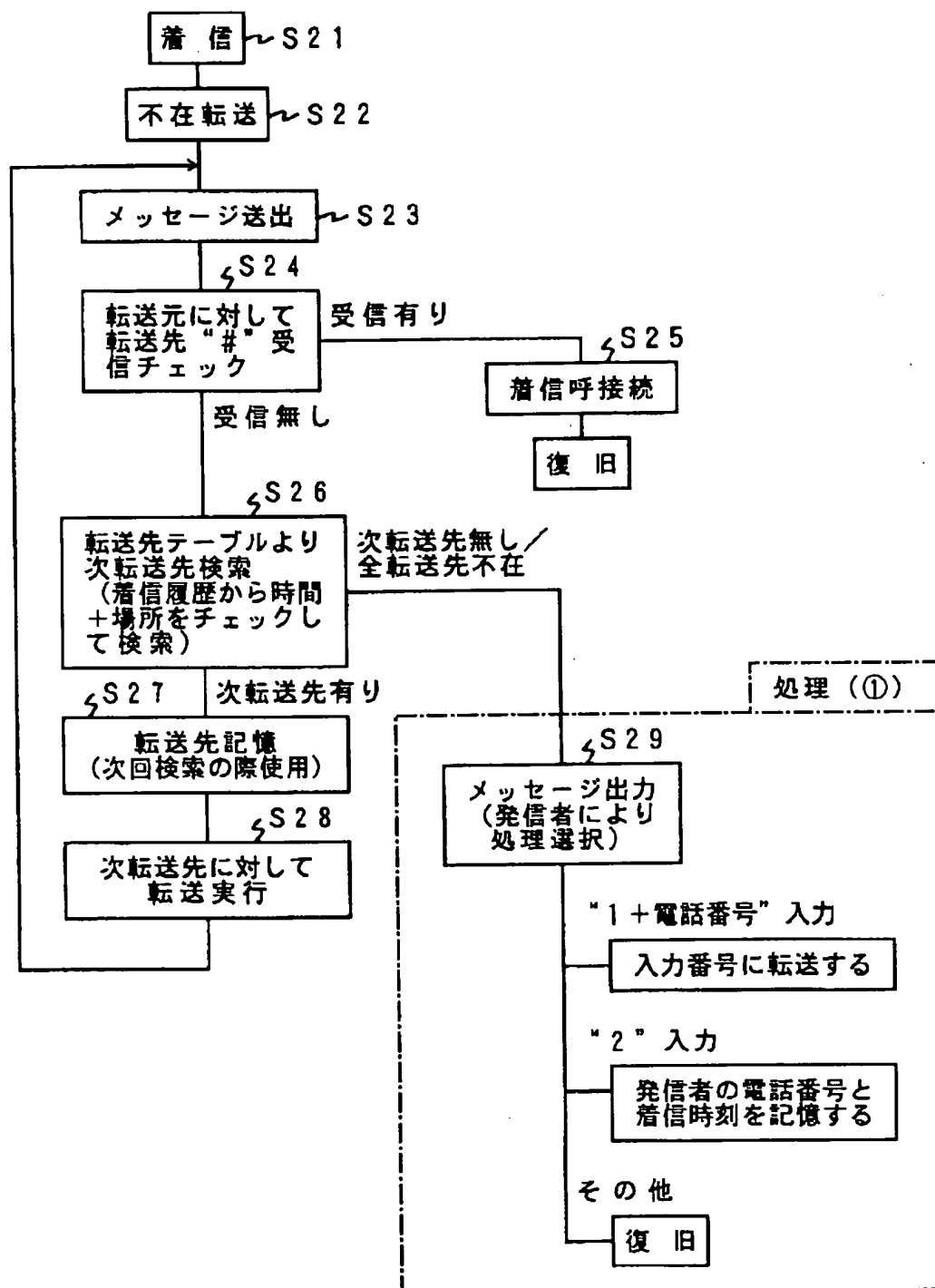


[Drawing 3]



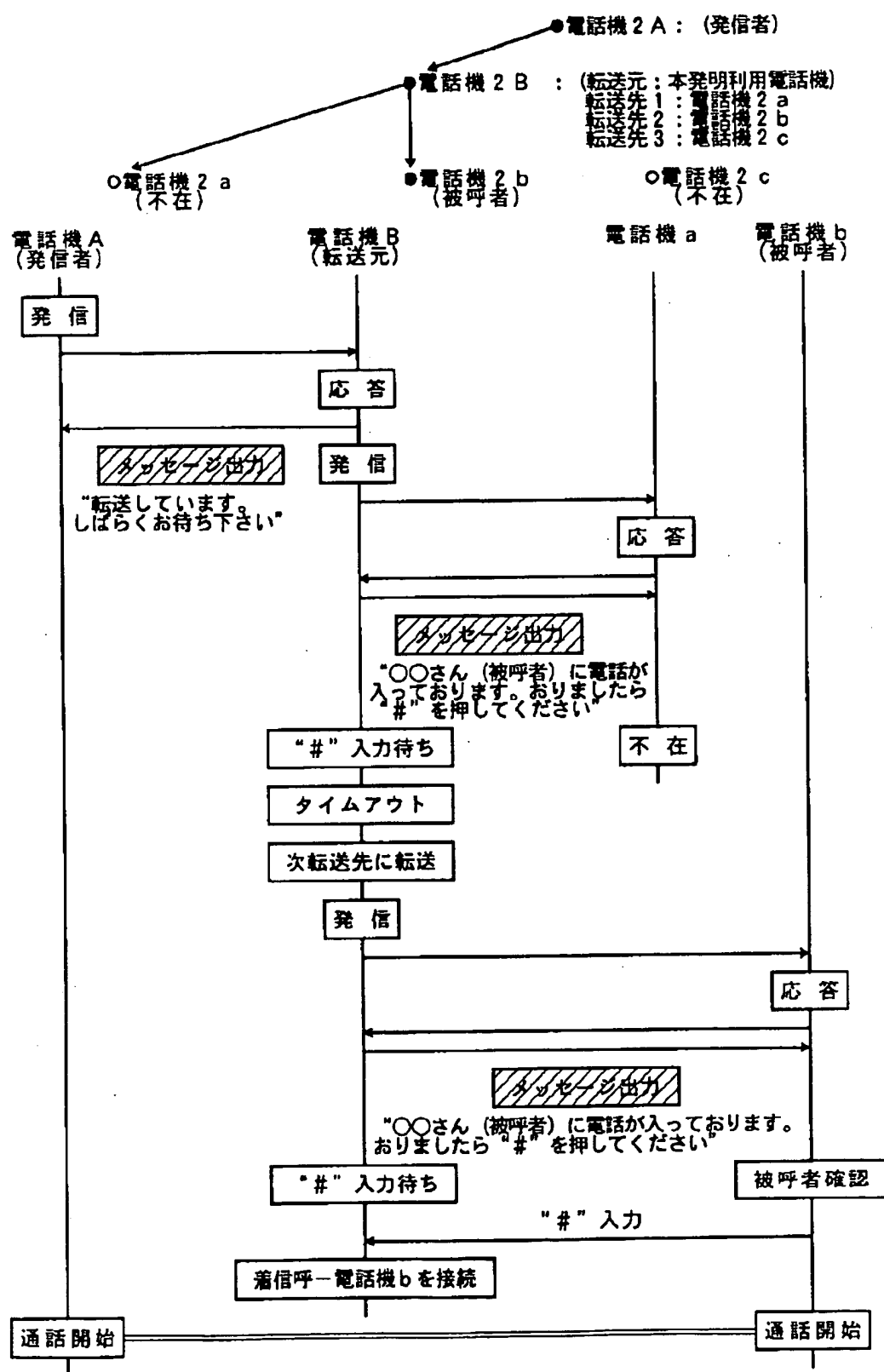
[Drawing 4]

BEST AVAILABLE COPY



[Drawing 5]

BEST AVAILABLE COPY



BEST AVAILABLE COPY

[Translation done.]